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AUTHOR Holland, Alyce; Andre, Thomas
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ABSTRACT

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The Effects of Participation in Extracurricular Activities in Secondary School: What Is Known, What Needs To Be Known?

Alyce Holland and Thomas Andre

Iowa State University

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Requests for reprints should be mailed to: Alyce Holland, N243 Lagomarcino Hall, Iowa State University, Ames IA 50011.

Telephone Numbers: Holland 515/232-2382
Andre 515/294-1754

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Abstract

The paper reviews the published research literature that assesses the role of the secondary school extracurricular program in the overall development of adolescents. The studies reviewed are divided into four areas: Immediate Effects of Activity Participation which includes the variables of powerlessness, committedness, self-concept, moral development, academic achievement, and race relations; Long-Range Effects of Participation which includes variables of educational goal attainment, occupational attainment, adolescent and young adult values, and young adult political and social involvement; High School Size and Activity Participation which deals with the extent and depth of activity participation in large and small high schools; and Athletics, which includes variables of educational achievement, delinquency, psychological effects, student development, and adolescent status systems. Suggestions for additional research are identified and guidelines for future research are presented. The effects of educational policies on student activity participation are discussed in relation to current educational issues.

The Effects of Participation in Extracurricular Activities in Secondary School:

What is Known, What Needs To Be Known?

The development and socialization of American children are influenced by many factors including family, peers, schools, and the media. During the adolescent years, family and peers provide the predominating influences, but the opportunities and limitations provided by schools also influence adolescent development. Schools can influence adolescent development in a variety of ways. Direct interactions with the academic curriculum in schools--that is, the degree of success or failure in various subject matters, the degree of encouragement available for academic effort--surely influence the self-esteem, aspirations, and values of adolescents. Interactions with teachers on a more personal level--e.g. whether particular teachers are warm or cold, encouraging or discouraging, etc.--also serve to influence adolescent development. By collecting adolescents into large groups, schools provide a major structural context for peer group interactions during adolescence. Finally, American schools provide a non-academic as well as an academic program for adolescents. By the pattern of extracurricular activities schools allow or disallow, facilitate or inhibit, and by the pattern of tangible and

intangible rewards provided for participation in activities, schools influence personality development and socialization. It is on the effects of participation in extracurricular activities that this paper focuses.

The principal purpose of this paper is to review published research studies that seek to determine the effects of participation in extracurricular activities. Extracurricular activities can be divided into two catagories: interscholastic athletics and non-athletic activities. Because of the predominance of interscholastic athletics in our culture, the effects of this activity have been relatively extensively researched (Stevenson, 1975).

Less attention has been paid to the effects of non-athletic activities. The present paper reviews the available literature on the effects of participation in non-athletic activities. This literature is limited in the number of studies available and the available studies vary considerably in methodological adequacy. The review has three major purposes: 1) to provide an overview of available findings, 2) to provide a methodological critique of the research, and 3) to discuss a general model for future research on this topic. Policy implications of the research findings for current educational issues are also discussed.

The paper is organized into seven major sections. Sections

1 and 2 deal with the immediate and long term effects of non-athletic activities respectively. Studies were categorized as immediate or long-term based upon their research design. Studies involving immediate effects typically compared activity participants to nonparticipants on one or more dependent measures. The critical variable for inclusion in this section was whether the measures were obtained concurrently or over a relatively short time interval (e.g. a few months at most). Long-term studies generally used data from high school records and then obtained follow-up information from students several years after completing high school. The critical classification variable was a substantial delay between initial and subsequent measures. Section 3 focuses on the effect of school size on participation. Section 4 provides a brief overview of the results of studies of athletic participation. While this paper concentrates on the effects of non-athletic participation, a section on athletics was included to provide a basis for comparison with studies of non-athletic participation. Section 5 provides a critque of the methodology employed in the studies. Section 6 discusses a general approach for research on this topic. Overall conclusions and implications for educational policy are discussed in a final section.

The review is limited to studies published since 1960. Particularly for the areas of non-athletic activities, an

extensive and systematic effort was used to locate the articles reviewed. The literature was computer searched using relevant descriptors (e.g. extracurricular activities). The references of major papers were examined for relevant references and those references were examined in turn. The relevant references provided in textbook chapters on adolescents and the school (mostly adolescent psychology texts) were also examined. The Tables of Contents of relevant journals were also scanned for relevant articles. Articles were included in the paper if they provided empirical data regarding the effects of participation or differences between participants and nonparticipants. Speculative papers, argumentative essays about the need for activities (or lack thereof), and how-to articles were ignored in the present review. Given the resources at our disposal, we are confident that we have identified and included a major portion of the available empirical articles dealing with non-athletic extracurricular activities. The search for articles and the literature reviewed was less comprehensive in the area of athletic participation. There were several reasons for this. The research on athletic participation is extensive and deserving of a review in its own right. Inclusion of this literature would have made the present paper unduly lengthy. At least a partial review of the athletic literature is available in Stevenson (1975).

We did believe that some discussion of the effects of athletics was needed in the present paper in order to provide a meaningful context for discussion of the effects of non-athletic activities. Thus, a section dealing with the effects of athletic activity was included which was based primarily on well-cited articles from that literature. No claim that the literature on athletic participation is comprehensively reviewed in the present paper is made.

Goals, Values, and Extracurricular Activities in American Schools

While we do not intend to provide a comprehensive discussion of the literature on values about American schools, a brief discussion of values is necessary because the perspective one takes about extracurricular activities in secondary school settings varies with the values and goals one has for schools. In our view, value positions about schools tend to adopt one of two positions which we will label the academic and developmental positions. The academic position focuses on intellectual competence and the teaching/learning function of schools and stresses that the purpose of schools is to <u>transmit formal knowledge</u>. From the academic perspective, extracurricular activities provide a means of relaxation or fun, but are clearly unimportant to the primary purpose of schools: the pursuit of academic excellence. In fact, extracurricular activities are

often seen as a threat to the academic mission of the school. The developmental position stresses the function of schools as to provide experiences that further the total development of individual students. The developmental position is more equalitarian, stressing that schools must provide experiences that are appropriate for the individual's own needs and that the whole development of all individuals must be considered in planning a school program. Academic learning is important from the developmental position but learning experiences should be tailored to the abilities and characteristics of the individual. Non-academic programs can be equally important in facilitating the development of the individual. Our societal rhetoric tends to cycle between these positions. For example, Clark and Astuto (1986) argued that prior to the Reagan administration, our societal rhetoric focused more on what we have called the developmental position; whereas the rhetoric since Reagan took office has focused more on the academic position.

That the position and values about schools a researcher holds strongly influences the data one collects and the interpretations the researcher makes can be easily demonstrated. In one well known work on role of extracurricular activities in schools, Coleman (1961) argued that the adolescent society and the emphasis placed on extracurricular activities in schools promoted values and behavior among adolescents that were

contrary to the adult society's purpose for schools, the transmission of academic knowledge. Coleman suggested academically-based extracurricular activities to restore emphasis on correct values (1960). That Coleman's research was influenced by an acceptance of the academic position seems clear. Coleman collected data about what influenced adolescent social status during the high school years. Friesen (1968) reported that when adolescents were asked about their long term values, academics were more highly valued than extracurricular activities. It is interesting to contrast Coleman's assumption that our adult society holds a single academic value with respect to schools with some unpublished data collected by the second author. In that study, two groups of adults, college professors and parents of undergraduates were asked to rank order seven possible college student role-orientations that they would wish for their students or children. The role orientations were taken from research by Stanfield and Schumer (1967) and included: academic, intellectual, vocational, instrumental collegiate, consumatory collegiate, social development, and ritualistic role orientations. College professors demonstrated a clear academic orientation in their rankings: the academic, intellectual, and vocational orientations, all of which had a strong component of learning in college, received high rankings; the other orientations

received very low rankings. The parents' rankings averaged about four (the midpoint of the ranking scale) for each of the role orientations indicating that each of the orientations was valued or devalued by different groups of parents. The point is that, while academics (college professors and Coleman) hold a fairly uniform academic position with respect to schools and extracurricular activities; the general population was much more diverse. By focusing on the short term goals of adolescents and by assuming a uniformity of values that did not exist; both the design of his study and interpretation of his data were strongly influenced by Coleman's value position with respect to extracurricular activities.

While it is probably impossible for researchers to divorce themselves entirely from their beliefs; they can at least communicate their beliefs to readers. Our values with respect to schools are more in the developmental camp. In our view, most American secondary schools exist to serve a diverse population of students; schools serve as one component in the way our society socializes adolescents and helps them to accomplish the developmental tasks of adolescence. The primary developmental task of adolescence is to construct a self-governing adult (Berzonsky, 1981; Greenberger and Sorenson, 1974). Development of a self-governing adult encompasses several subtasks (e.g. Havighurst, 1972). The academic program

of the school serves some of these developmental subtasks. But our industrialized culture age-segregates adolescents in schools and adult success requires more than academic success. In our view, these considerations require that schools must provide for more than the academic development of adolescents and extracurricular activities are one mechanism for accomplishing these non-academic goals. Our values have certainly influenced our interpretations and evaluations of the studies reviewed in this paper.

Immediate Effects of Participation in Extracurricular Activities

The scarcity of relevant empirical research is especially evident in the area of the immediate effects of extracurricular participation. Few studies using adequate designs to assess changes in students as a result of activity participation have been reported.

The studies examining the immediate effects of participation in extracurricular activities have focused mostly on the following variables to assess effects: sense of power, sense of committedness, self-concept, moral development, academic achievement, and race relations. The general methodology employed in these studies has been relatively weak. Typically the studies have involved sampling groups of activity

participants and nonparticipants and measuring one or more of the above dependent variables. Statistically significant differences between groups were assumed to be due to activity participation. The major limitation of this methodology is the assumption that experimental and control groups were similar prior to participation.

Data collection for several studies reviewed was from a single high school, making the results specific to the school studied, and limiting generalizability to high schools with differing value climates and in different contextual settings. Instrumentation used for the measurement of attitudes, values, and personality traits may be problematic due to low reliability and/or validity, and the possibility of respondent faking.

Affective Measures

Sense of power. Burbach (1972) examined the relationship between participation in extracurricular activities and high school students' feelings of societal and school powerlessness. Powerlessness was defined as the feeling by individuals of having little or no influence or control over events in their own lives. Burbach's measure of societal powerlessness consisted of four items from Neal and Rettig's Scale (1967) and four items from Dean's Alienation Scale (1961). An example item was: "It is only wishful thinking to believe that one can really influence what happens in society at large" (Burbach,

1972, p. 345). High school powerlessness was measured by four original items and by rewriting one Dean and four Neal and Rettig items to establish the high school as the reference point of each item. A typical rewrite was: "The student has little chance of protecting his personal interests when they conflict with those of the school" (p. 345). The eight societal and nine high school powerlessness items were scored on a Likert-type agree-disagree scale. The study was conducted at a predominantly white, rural high school in the Southeast. All members of the school's 10th-12th-grade classes were administered the scales: total Number (N) = 565. Scores were statistically controlled for socio-economic status (SES) and grade point average. The finding that both societal and high school powerlessness decreased as the number of activities in which students were involved increased supported the contention that the more students participated in their social systems, the more in control they felt. The scores of individuals who held school-related offices were significantly ($p < .01$) lower on both scales of powerlessness than nonoffice holders, indicating that office-holders felt more in control of events both in society and in the specific high school environment. Females had a greater feeling of control than males, contrary to power perception in adult society. Athletes (including cheerleaders) and non-athletes were found to have no significant differences

in measured powerlessness. This finding differed from Coleman's (1961) results which indicated that athletics was the most important male school activity. Burbach's subjects were from one high school; the study would be more generalizable by using a random sample of students from several schools.

Sense of committedness. Burbach (1974) compared committed and uncommitted high school students on several characteristics. Level of commitment was defined by the respondent's feelings of power and response to authority. Power was defined as the felt ability to exert influence in a given social situation and was assessed by three items from Neal and Rettig's (1967) measure of societal power and three items from Burbach's (1972) study which measured feelings of power specifically in the high school. Authority was defined as legitimate power and was measured by a six item scale developed for this study. A typical item from the authority index was: "In general, it doesn't matter who's in charge in this society, you can't trust them anyway" (p. 129). The response set for both indexes was a five-choice agree-disagree Likert-type continuum, with one representing the most negative feelings of power and authority and five representing the most positive feelings. Subjects (N = 2,585) were selected from eight public Virginia high schools representative of urban, suburban, and rural areas. The mean scores (power = 17.96; authority = 18.81) and standard deviation

(power = 3.79; authority = 3.68) for the entire sample were computed on both scales. All students with scores at least one standard deviation above the mean on both the power and authority indexes were assigned to the committed group (n= 107). Those students who scored at least one standard deviation below the mean on both indexes were assigned to the uncommitted group (n = 101).

The data were analyzed to test the significance of differences between groups of committed and uncommitted high school students across selected descriptive and attitudinal variables. A chi-square analysis was used to determine the differences between committed and uncommitted students on the selected variables.

Factors that were significantly related to lack of commitment were being male ($p < .05$), black ($p < .001$), and from the lower socioeconomic class ($p < .01$). When race was controlled, there were more uncommitted students in urban schools than in suburban or rural schools. Committed and uncommitted groups were found to differ in several important school-related variables. Committed students more frequently participated in extracurricular activities ($p < .001$), planned to continue their education beyond high school ($p < .001$), and obtained higher grades ($p < .001$).

Additional research would seem necessary on the

relationship between participation in various school activities and students' feeling of both powerlessness and lack of commitment. The purpose of Burbach's (1974) exploratory study was to identify variables for use in future research. Committed and uncommitted students were found to be unequally distributed across sex, race, SES, and the school setting. Statistically controlling on these variables in future research would help to identify relationships between student commitment and participation in extracurricular activities. Effects of self-selection (committed students are more likely to participate in activities) could be minimized by measuring student commitment before students enter high school and again before 12th-grade.

Self-concept. The relationship between participation in student activities and self-concept was studied at a suburban Detroit high school by Phillips (1969). The study was limited to 188 seniors at this predominantly (80%) black school. The Osgood Semantic Differential (1958) was used to measure self-concept. Activities were placed in four categories: athletics, clubs, music, and other organizations.

The data revealed a significantly positive relationship between participation by boys in school activities and scores on this self-concept measure. No significant relationship was found for girls or for the total sample. Participation in music activities related positively to self-concept scores for all

participants. A significant relationship was found for first-string male athletes, but not for second-string athletes. Phillips concluded that activities which gave participants publicity, such as boys' athletics and music activities, increased the self-concept scores of student participants. The small population used in this study was from a single high school, so generalizations to other schools cannot be made on the basis of this research.

Moral Development. Duffy (1982) described a three-year study of a service program at a college-preparatory Catholic high school. Rest's Defining Issues Test (DIT) (1979) was used on a pretest-posttest basis to measure moral judgment and Kohlbergian stage scores. The experimental group consisted of 251 students who voluntarily worked with 88 different service agencies including elementary schools, hospitals, and senior citizen centers. Students in the experimental group were also required to meet periodically in small discussion groups with faculty members, write three reflective papers and do related reading. The control group included 81 students who elected not to participate in the service program. Both groups had comparable grades and aptitudes.

Comparisons were made between the pretest and posttest Principled morality score (P% score) of the DIT of those in service programs and those not involved. The P% score reflects

degree of post-conventional thinking. Post-conventional thinking reflects the higher levels of moral reasoning according to Kohlberg (1958, 1969). Mean scores were not reported. A statistically significant difference ($p < .001$) between the pretest and posttest P% scores was found in the service orientated group; no significant difference was found in the control group. Duffy (1982) concluded that participation in a service-type activity in high school promotes moral growth of students. Duffy also proposed that a better research design would have included three groups: students who participated only in service programs, students who had only the course work, and students with both service and course work. The statistical analysis would have been strengthened by comparing the pretest means of experimental and control groups. Even though both groups had similar academic backgrounds, it is possible that students most likely to increase in moral reasoning elected to participate in the service program.

Academic Achievement and Music. The relationship between academic achievement and pupils' participation in band and/or orchestra was investigated by Robitaille and O'Neal (1981). A total of 5,154 5th-graders in Albuquerque, New Mexico took the Comprehensive Tests of Basic Skills (CTBS); of these, 910 were enrolled in band and 357 were in orchestra. One year later, 129 randomly selected music students were paired with nonmusic

students from the same schools who had matching scores on the Short Form Test of Academic Aptitude. Comparing the total CTBS scores of the nonmusic students with the randomly selected music students resulted in the music students having an average raw score one point higher than the academically matched nonmusic students. Although this difference was not statistically significant, the authors concluded that instrumental music students suffered no loss of skills despite having missed some instruction time.

In this study, students were initially tested in the 5th-grade. Some of the students had participated in the instrumental music program for two or more years. Pretesting students before they participated in the instrumental music program would have improved the study by indicating the role that self-selection (better students may elect the music program) played in the different achievement scores. Alternatively participation in the instrumental music program may have had its greatest effect on academic achievement in the first year or two of participation. These possibilities were not assessed by Robitaille and O'Neal (1981). Additionally, the evaluation of student academic performance should then be continued yearly to determine any longer-range effects of the music program.

Race Relations

Supporters of school desegregation often assume that increased interracial contact in the classroom will result in improved racial attitudes and behaviors by students in integrated schools. St. John (1975) reviewed over 40 studies of the effects of school desegregation on racial prejudice and found no conclusive results. Recent studies to determine which school practices improve race relations have shown a positive relationship between improved racial relations and participation in extracurricular activities.

Effect of school practices. Slavin and Madden (1979) used questionnaire data collected by the Educational Testing Service in 35 Southern and 16 Northern desegregated high schools (N = 2,384) to examine school practices related to improved racial attitudes and behaviors. In addition to the school level analysis, data were analyzed at the individual level using multiple regression equations. The dependent measure of race relations consisted of responses to six questions dealing with racial behaviors and attitudes. A sample behavioral question was: "Have you ever called a student of a different race on the phone?" (p. 172). An attitudinal question was: "How uncomfortable do you feel around students of a different race?" (p. 172). Predictor variables included teacher workshops on racial relations, using multi-ethnic texts, class discussions on race, having a biracial advisory committee, working with other

races, and being on a sports team. The subjects in this study were either black or white students; all other minorities were excluded from the analyses. The results were statistically controlled for school percent black, black SES, white SES, region (South or North), individual SES, and sex. Social economic status was assessed by a scale of four items: mother's education, receiving a newspaper, home ownership, and living with both parents.

The school-level variable for whites that had a strong and consistently positive relationship to positive race relations was "students work with other races." This variable had significant effects on five of the six dependent variables. Class discussions of race had weaker effects, being significant on only two of the six variables. For blacks there were fewer significant effects on race relations for the school practices tested. "Students work with other races" had a strong positive effect on one dependent variable (phoned other race), while intergroup workshops had a smaller effect.

On the individual level, being on an interracial sports team and working in class with a member of another race were significantly ($p < .001$) related to all of the dependent variables for whites. For black students, the "team" and "work with" variables had positive significant effects on five of the six dependent variables.

School-level practices such as desegregated classes, teacher workshops, use of multi-ethnic texts, and class discussions of race relations had no significant effects for either black or white students. Practices that promoted student interactions between different races were strongly related to positive racial attitudes and behaviors.

Slavin and Madden (1979) interpreted the results to indicate that programs involving cooperative interaction between students of different races were most likely to improve race relations in desegregated schools. The authors suggested that future workshops on improving race relations should focus on specific teaching methods that promote student interaction in the classroom and in extracurricular activities.

Crain (1981) described a study based on the responses to questionnaires from 10,000 students in 200 desegregated Southern high schools. Schools were compared as to interracial effectiveness and general educational effectiveness. Measures of school effectiveness included student academic success, self-esteem, quality of race relations, delinquency in school, and student attitudes toward self and schools. Students were asked: "In the morning are you usually glad to go to school?" or "When you get punished at school, does it usually seem it's for no good reason at all?" (Crain, Mahard, and Narot, 1982, p. 264).

Successful programs were identified by constructing

regression equations for each measure of school effectiveness. More than 100 school practices, programs, or resources were then added, one at a time to find which were consistently related to school success (see Crain et al., 1982, pp. 257-271 for methodological details). Most school practices, programs, and resources were not related to either interracial or general school effectiveness. One of the most important differences found between successful and unsuccessful schools was that effective schools, as defined by Crain (1981), had higher levels of student participation in extracurricular activities.

Schools were then identified that had high white or high black extracurricular participation rates. In addition to increasing the opportunity for positive interracial contact, there was a significantly ($p < .05$) positive relationship between high levels of participation and higher student self-esteem, more positive attitudes toward school, more parental visits to school, and more personal student-teacher contact.

Schools with higher participation rates had fewer students who were not happy. Crain (1981) concluded that this decrease in unhappiness and alienation in Southern desegregated high schools increased the school's ability to teach academic subjects because students felt more attached to the school.

Interracial contact by activity type. Scott and Damico (1983) addressed the following questions: (a) Which activities

in high school produced the most frequent cross-race contact, and (b) What was the relationship between interracial contact in high school and in college. The subjects were 267 white undergraduate students who answered a questionnaire prepared for this study. The statistical data were not reported in the article.

Scott and Damico (1983) argued that the extracurricular programs of schools provided important opportunities for students to experience cross-race contact. The majority of students at both the high school and university level reported that their main source of interracial contact was through participation in school-sponsored activities. Students who participated in at least one cross-race activity in high school were more likely to participate in college cross-race activities. Three clusters of high school activities which promoted interracial contact reported by Scott and Damico were: (a) informal parties and dinners, (b) school publications and student government, and (c) frequent contact situations.

These results did not answer the question of the most effective type of extracurricular activity in promoting improved interracial relations. Continued research is needed on the relationship between specific activities and race relations in high school.

Rate of desegregation. Darden and Jacob (1981) studied

desegregation in two Delaware and four Michigan high schools to test two hypotheses: (a) Schools that have undergone rapid desegregation would show lower levels of participation in extracurricular activities by both black and white students than schools where the rate had been slower, and (b) Schools that had undergone rapid change would have higher levels of segregation within their clubs and organizations than schools where desegregation was slower. Three of the high schools in the study had undergone rapid desegregation and three had experienced a slower change in racial composition. Data were obtained from school yearbooks for the years 1972 to 1979.

A significant difference ($p < .05$) was found in the participation rates between rapidly integrated and slowly integrated schools. The more rapid the change in racial composition, the lower was the level of both black and white student participation in extracurricular activities. The second hypothesis, that schools that had undergone rapid desegregation would have higher levels of segregation in their high school clubs and organizations, was not supported by this research. As students adjusted to rapidly integrated schools, the level of participation increased. This study suggested that the positive effects of activity participation on racial relations would be decreased when integration took place rapidly. Team sports were not included in this research because previous research (Gordon,

1967) showed that sports activities were integrated soon after desegregation occurred, regardless of the overall rate of change in the racial composition of the high schools.

Conclusions. A positive relationship between activity involvement with members of another race and improved race relations and attitudes in desegregated high schools was indicated by the research reviewed. Because this research is correlational in nature, the direction of causality can be questioned. It is possible that higher rates of participation in activities are a result of positive race relations in schools rather than the causes of them. This interpretation is unlikely, because other practices which might be associated with positive race relations (using multi-ethnic textbooks, teaching minority history) were not found to be related to positive interracial relations (Slavin and Madden, 1979).

Support for the idea that cross-race participation in extracurricular groups facilitates improved racial attitudes also comes from experimental research by Aronson and his associates. Aronson, Bridgeman and Geffner (1978) reviewed the research on cooperative learning groups and racial attitudes, and concluded that such groups improved race relations. Since extracurricular groups can be conceptualized as cooperative work activity groups, Aronson et al.'s conclusions support the results of the correlational research reported in the present

paper.

Extracurricular Program Evaluation

Buckley (1977) studied the participation of high school students in the activities provided at three Queensland, Australia state high schools. The factors considered as possible influences on students' participation were also examined. A questionnaire was developed for the three high schools which listed the available activities in each. Students were requested to describe their experiences, the satisfaction they gained through participation, and the pressures they felt toward participation. Five hundred and eighty 10th- and 12th-grade students returned questionnaires.

Only 2% of grade 10 and 4% of grade 12 students were found to participate in decision-making or other administrative activities. Girls were in more activities than boys, and academic achievement had more effect on participation than did family background. Grade 10 students in the "failing" sample participated less, whereas grade 12 students with lower academic standing had a higher rate of participation. Buckley (1977) attributed this to the lower academic students' determination to achieve success in some area, a determination which had aided these students to remain in school to grade 12.

Students in blue collar families experienced more pressure to achieve success in activities. These pressures came mainly

from peers and friends, rather than from parents or teachers. Student satisfaction with school was positively related to participation in extracurricular activities, according to student questionnaire answers.

The results of this survey showed a deficiency in the activities available to students in the three Queensland high schools, especially in the area of activities that involve students in school decision-making. A similar evaluation of activities in American high schools would provide administrators and teachers with important information for planning future activities for their students.

Immediate Effects of Participation: Conclusions

With the exception of Burbach's (1974) study of committedness and the race relations research, the subjects for the studies reviewed in this section were from single high schools, making generalization of results to other high schools problematic. The findings presented apply only to the population of students sampled in each investigation. Further research, using samples of students from a wider population base is needed before substantive conclusions can be drawn about the immediate effects of activity participation.

In general, activity participation was positively related to indicators of positive adolescent development in the research reviewed in this section. Thus, activity participation

correlated with variables such as grades, self concept, sense of power, and improved race relations. It is tempting to conclude that a cause-effect relationship exists. However, the studies reviewed do not justify a cause-effect conclusion. These studies generally ignored the problem of self-selection into activities of students possessing higher levels of the trait being measured. Even when using a pretest-posttest research design, the possibility exists that students more likely to develop the variable being tested (self-concept, sense of power, moral reasoning) elected to participate. The research studies in this section can serve as pilot studies for future studies on the immediate effects of activity participation.

The studies reviewed in the "Immediate Effects of Participation in Extracurricular Activities" section are summarized in Table 1.

Insert Table 1 about here

Long-Range Effects of Participation In Extracurricular Activities

The main focus of the investigations discussed in this section was the relationship between extracurricular involvement and long-range educational attainment. Other dependent measures studied have included income, occupational goals and their

attainment, and young adult political and social participation. Data were collected from subjects by surveys administered when students attended high school and by follow-up questionnaires sent to respondents 2 to 15 years after completing high school. In most studies the data were analyzed by multiple regression techniques.

Only a limited amount of research is available on the relationship between participation in high school activities and postsecondary behaviors. This is unfortunate, as the ultimate worth of an educational program is the permanence of its effects. The span of time required to conduct longitudinal investigations has been a detriment to performing these studies. Researchers have yet to study the relationship between high school activity participation and long-term affective changes such as self-acceptance, self-concept, tolerance, or feelings of responsibility.

Educational Aspirations and Attainment

Spady (1970) studied the effects of peer status and extracurricular activities on future educational goals and goal attainment among 297 senior boys in two neighboring suburban West Coast high schools. Three separate issues were examined: (a) the influence of peer-group factors on student aspirations, (b) the influence of peer-group factors on college attainments, and (c) the influence of peer-group factors on goal fulfillment

(how many students with college aspirations during high school actually attended beyond the first year in college). A questionnaire administered early in each boy's senior year (1963) obtained information about the student's academic and extracurricular experiences; his criteria for evaluating the basis of peer popularity, respect and status; his occupational and educational goals; his tastes in music, reading, and recreation; and his family's socioeconomic status and life-style. Primary Mental Abilities scores and academic records were provided by the high schools. Parents were asked to complete a questionnaire about their own educational and work experiences, their aspirations for their son, and their assessment of his skills.

Four years later (1967), a brief questionnaire which explored educational and work experiences since leaving high school was mailed to each boy in the original sample. Seventy-three percent returned questionnaires. Data for the remaining students were reconstructed from parental and other student information and from school records. It was assumed that students who had not sent their high school transcript to a college had not matriculated.

Dependent variables were educational goals (from the 1963 questionnaire), educational attainments (from the 1967 questionnaire), and goal fulfillment (measured as more than one

full year of college credit, provided the student aspired to attend college while in high school). Control variables included SES (as determined by father's job and civic participation), student IQ, and high school grades.

During the senior year of high school 74.1 percent of the original sample planned to attend college. Four years later only 48.5 percent had completed more than one year of college. Spady (1970) sought to determine the sources of the original college aspirations and reasons for the lack of goal fulfillment. Boys' perceived peer status was positively related to high educational goals, especially for boys in the lower SES and academic ability groups. Students from lower SES families with higher perceived peer status had higher educational goals than students from higher SES families with lower perceived peer status (88 and 74 percent, respectively).

The reverse was true of actual goal fulfillment as measured by more than one year of college credit. Boys with high perceived peer status were less likely to attend or succeed in college than those with higher academic abilities from higher SES families. The lowest goal fulfillment rate was the group of boys with low grades but high perceived status (45.5 percent attended college). Actual peer status was more strongly associated with college attainment than perceived status. Boys with low grades but high actual peer status had a 60 percent

goal fulfillment rate. Perceived peer status inflation was negatively related to goal fulfillment.

Spady (1970) then compared the relationship between type of high school extracurricular participation and rates of aspirations and goal fulfillment. High school activities were placed in two groups: (a) athletics, and (b) service (including student government). Boys who participated in both athletic and service-leadership activities had the highest goals and also the highest rate of fulfilling these goals. Participants only in athletics had high goals but low rates of fulfillment. Spady (1970) attributed the high goals to increased perceived peer status as a result of athletic participation, and stated that sports activities stimulated short-lived status rewards, but did not provide the skills necessary for subsequent success in college. Boys who participated only in service-leadership activities had higher goal fulfillment rates than those only in athletics, but lower rates than participants in both. The average chance of boys in this study fulfilling their goals was 43.5 percent greater for boys who engage in service participation and who had an accurate perception of peer status than for athletes with no service participation and an inflated peer status. Spady (1970) concluded that the male athlete who had poorly developed leadership abilities and a weak academic background was considerably less likely to fulfill his

educational goals.

Spady (1971) used the same sample of boys and data collected in 1963 and 1967 to study the relationship between participation in specific extracurricular activities and students' educational goals and the fulfillment of these goals. The independent influences of peer status, academic achievement, and intrinsic motivation were explored in relation to educational goal fulfillment of students in different extracurricular programs. Activities were classified into five groups: (a) varsity sports; (b) social clubs; (c) performing arts (music, drama, art, and publications); (d) service-leadership (social services and government); and (e) a combined other-or-no-activity category. Data analysis was by bivariate correlation and cross-tabulations.

Students who participated in service-leadership activities had the highest goal fulfillment rate, followed by high academic achievers, and varsity sports participants. Inactive students had the lowest goal fulfillment rate. Inflated perceived peer status was again negatively related to educational achievement. Social activity and fine arts participants had a low rate of goal attainment. The addition of intrinsic motivation as a variable somewhat reduced the independent effects of high grades and service-leadership roles on goal fulfillment. Students with no activities again had the lowest attainment rate.

Spady (1971) hypothesized that activities provided participants with varying degrees of status and prestige and facilitated the development of both skills and attitudes useful in students' future endeavors. He concluded:

> By far the greatest facilitator of college success is the extracurricular involvement of the student during high school. Participants have a 37 percent greater chance of fulfilling their college goals than do nonparticipants, net of their academic performance, intrinsic motivation, and peer status perceptions (p. 396).

Otto (1975) tested Spady's hypothesis on 340 seventeen-year-old male Lenawee County, Michigan students who were first contacted in 1957 and followed-up fifteen years later in 1972. The 1957 data provided information on family SES, mental ability and academic performance, participation in extracurricular activities, and educational and occupation aspirations. Subjects were contacted in 1972 by telephone or mail-back questionnaire and asked to provide information on their life cycle histories and levels of educational attainment.

A multiple regression analysis showed that incorporating extracurricular participation into regression equations increased educational attainment nearly 9 percent over the variance explained by SES, academic ability, and academic performance. Otto (1975) concluded that these results confirmed

Spady's hypothesis on a less restrictive sample and over a longer period of time.

While Spady's conclusion that participation in activities relates to later goal fulfillment is consistent with the pattern of data he obtained, it is not the only explanation of the data. An alternative hypothesis that is not excluded by Spady's analyses is that self-selection of students into extracurricular activities rather than participation itself may have been related to the higher rates of goal fulfillment among participants. Students in activities may initially possess higher success orientations.

The important contributions of Spady's studies (1970, 1971) included: (a) the demonstration of consistently low rates of fulfilling educational goals among students in the no-activity group, (b) the low educational goal attainment rates of athletes and students with inflated status perceptions, and (c) the exploration of the effects of participation in activities other than athletics. Further research of the aspiration-attainment process should include a larger number of subjects selected from a broader geographic base. The relationship between female activity participation and educational goal fulfillment also needs additional study. In addition, Spady's research stands mute on the processes by which participation could influence goal attainment. If a causal hypothesis such as Spady's is to

be maintained, a description of the processes by which participation operates to influence future attainment is essential. Spady argued that participation fostered achievement and success orientations, and/or the development of leadership skills, but did not directly assess these variables.

Educational, Occupational Aspirations and Their Attainments

Otto (1976) explored the process involved in the relationship between extracurricular participation and increased educational aspirations. He focused on the aspiration hypothesis, reasoning that if aspirations were held constant, the effects on educational attainment by activity participation should disappear. The data from Otto's 1975 study were used (N = 340 male subjects) to assess this relationship. Educational aspirations were measured by the number of years of education respondents planned to obtain after high school. Otto (1976) sought to answer three questions concerning participation in high school extracurricular activities: (a) Does participation affect the level of educational attainment, after statistically controlling aspirations? (b) Does participation affect later income and/or occupational aspirations and their attainment? (c) Does participation play a mediating role in explaining how family SES influences goal attainments? The dependent variables were education, occupation, and income attainment. Statistical significance was defined by the criterion that the absolute size

of the regression coefficient had to be at least twice as large as its standard error.

Otto's (1976) results indicated that participation in high school extracurricular activities had a statistically significant total effect on education, occupation, and income even when initial family SES, mental ability, academic performance, and educational and occupational aspirations were statistically controlled. Because participation had an effect on each dependent variable, even when aspiration level was controlled, Otto concluded that effects of participation were not solely from increased aspirations for success. Otto suggested that interpersonal skills were acquired as a result of activity participation, and that possession of these skills gave participants an advantage in occupation and income attainment. A positive significant relationship between family SES and participation suggested that the extracurriculum served as a means by which parental socioeconomic status was passed on to sons.

Otto (1976) concluded that the relationship between extracurricular participation and attainments may also have been due to a common personality trait in participants (spurious trait hypothesis). Further research is necessary to ascertain the role of personality traits and the effects of specific forms of extracurricular involvement on the status attainment process.

Otto and Alwin (1977) used the data previously described (Otto, 1975) to examine the relationship between athletic participation and educational and occupational aspirations and the attainment of both sets of aspirations. The purposes of this study were: (a) to cross-validate research (Spady, 1970, 1971) supporting the hypothesis that perceived peer status mediates the effect of athletics on educational aspirations and attainment, (b) to compare estimates for the perceived peer status model with estimates for a significant others' influence on the process, and (c) to extend research on the effects of athletics and peer status to include occupational aspirations, occupational attainments, and income.

Three indicators of significant-other effects were employed: (a) parental educational encouragement; measured by asking the extent that parents gave educational encouragement, (b) best friends' educational plans; measured by averaging aspiration scores of up to five best friends in the sample, and (c) girl friends' educational encouragement; measured by a question in the follow-up study. Perceived status was determined by 21-modified questions from the California Test of Personality. Example items were: "Do you feel that you are an important part of your school?" or "Do you feel that people usually think well of you?" (p. 106). Five dependent variables were: educational and occupational aspirations, educational and

occupational attainments, and income (personal income from the previous year). The total effect of participation in athletics on each of the five variables was first assessed, while holding family SES, mental ability, and academic performance constant. Participation in athletics had a significant positive effect on each of the five dependent variables.

To determine how athletic participation influenced the dependent measures, the effectiveness of perceived peer status and significant-other influences were examined separately. The proportion of total effect of athletic participation mediated by perceived peer status did not exceed 10 percent; whereas, the proportion of total effect mediated by significant-others' influence ranged from 27 percent to 50 percent. These results refuted Spady's hypothesis that perceived peer status was the dominant intervening mechanism in the effects of athletic participation on educational goals and their attainment.

Caution must be used in concluding that these findings demonstrate that a large proportion of athletic effects were mediated by significant-other influences. The measures of significant-other effects were somewhat questionable: each boy's best friends had to be in the sample to be part of the study, and girl friend's (or wife's) educational encouragement was measured by the follow-up study which was 15 years after the presumed encouragement occurred. Actual attainment may have

influenced the responses, and memories of encouragement may have been inaccurate, thus reducing the validity of the measure.

Hanks and Eckland (1976) developed a model to assess the effects of high school extracurricular participation on educational attainment. Males (N = 947) and females (N = 1,130) were evaluated separately using data from a national sample of youth who were high school sophomores in 1955. The initial survey consisted of two major sections: a 20-item aptitude test, and a self-report questionnaire which provided information on family background, college plans, academic performance, curriculum placement (college preparatory or all other), and peer and teacher contacts. Peer contact was measured by responses to items such as: "What are the college plans of the friend you most like?" Teacher contact was obtained by responses to a single item: "To what extent have you discussed going to college with the teachers or guidance counselors in your school?"

The follow-up self-report survey was administered in 1970 and provided information on educational attainment, high school activity participation, and high school and college grades. High school extracurricular activities were divided into two participation variables: "athletic" and "social." Social participation included publications, dramatics, music, debate, student government, social service or religious groups, clubs,

and other academic groups. The data were analyzed first to determine factors leading to participation in sports or social activities; and second to determine independent effects on the educational attainment process. Results were estimated separately for males and females.

Significant predictors of participation by males in high school sports were: contact with teachers, contact with college-oriented peers, college plans (all positive), and social class (negative). None of these factors predicted female sports participation. Grades were weakly positively related to sports for women, but not for men. The only similar factor in both the male and female predictive model was the negative effect of academic aptitude.

The strongest single positive determinant of participation in social activities for both males and females was grades. All factors were positive indicating students who participated in activities other than sports were likely to be those who previously had good grades, were enrolled in an academic curriculum, had college-oriented friends, and had contact with their teachers.

Participation in sports had no direct effects on later peer contacts, grades, curriculum, and educational attainment for males. For females sports participation related negatively to peer contact. Male social participation had relatively strong

positive effects on peer contact, teacher contact, grades, and educational attainment. Social participation by females had the same positive effects, with the exception of educational attainment. The correlation between female social participation and educational attainment was due almost entirely to indirect effects such as academic aptitude, peer contact, or family SES.

Hanks and Eckland (1976) concluded that sports participation neither depressed nor enhanced academic achievement. In contrast, social activity participation was strongly and independently associated with higher levels of performance and attainment. These data supported the results of Spady (1970, 1971) and Otto (1975) and were from a larger and more diverse sample of respondents. Several items (extracurricular participation, grades, curriculum, contacts) in the present study were obtained retrospectively, and therefore were subject to error in reporting. Limited opportunities for female participation in sports at the time (1955-1957) of data collection may have affected results.

Snyder (1969) conducted a study of the relationship between student values and social participation in high school, the relationship of values to educational and occupational attainment, and the extent of the continuation of adolescent values into adulthood. Social participation in high school and its association with later educational and occupational

attainment were also investigated among 343 graduating seniors at a single midwestern high school.

Values were operationalized by using Coleman's procedure of asking students how they wanted to be remembered. High school social participation was calculated by combining the number of activities per student with the prestige of the activity in the school culture. A follow-up questionnaire which measured young adult values by asking how they would like their sons and daughters remembered was mailed to the original subjects five years after high school graduation. Respondents were also asked to indicate their educational achievements and occupational status.

As graduating seniors, students wanted to be remembered as popular and as leaders in activities. Five years later the same students responded that they would like their sons and daughters remembered as brilliant students, suggesting that significant changes had taken place in student values following graduation.

Students who valued activities were above the median in high school activity participation, indicating a relationship between values and behaviors. Although there were no statistically significant differences between high school value orientations and students' educational achievement, students who desired to be remembered as star athletes (boys) or activity leaders (girls) were more likely to have finished college than

those who selected brilliant student or most popular. When controlled for IQ, social participation was still positively associated with educational achievement after high school. Controlling for parental SES indicated a stronger relationship between activity participation and educational achievement for children of blue collar workers.

High school male social participants were employed in white collar jobs at a higher rate than nonparticipants five years after graduation. Snyder's (1969) research indicated a positive correlation between social participation in high school and educational and occupational achievement. Coleman's (1961) findings that adolescents seek prestige and popularity through activity participation was substantiated, but involvement in the extracurriculum was not found to be contrary to academic pursuits.

Political Participation

Hanks (1981) used data from the National Longitudinal Study (NLS) of the High School Senior Class of 1972 to investigate the effects of adolescent participation in high school activities on involvement in early adult political activities. The sample consisted of 10,245 students who were followed-up two years after leaving high school. The initial questionnaire administered to high school seniors measured social class background, academic aptitude, self-esteem, and adolescent

activity participation. Hanks treated high school participation in voluntary associations (student activities) as two separate constructs: instrumental and expressive. Instrumental organizations were those whose primary activities served as means to an end: honorary clubs, school newspapers or yearbooks, subject matter clubs, student government, and vocational educational clubs. Included in the expressive category were athletic teams, cheerleaders, pep clubs, debating, drama, music, and hobby clubs. The primary activities of expressive organizations served as ends in themselves.

Three separate forms of political participation were measured in the follow-up survey: discussion of the issues, participation in campaigns, and voting. Discussion of the issues was determined by summing responses to 5 items which asked if the respondent "ever talks about public problems with friends, fellow workers, family, and others." Campaign participation was measured by summing scores to 4 items, such as: "Have you ever done any work to help a candidate in his campaign?" Two items were summed to produce a voting index: "Are you registered to vote?" and "Did you ever vote in a local, state, or national election?"

High school activity participation was found to be positively related to early adult political activity, independently of social class background, ability, academic

performance, and self-esteem. Instrumental participation was significantly and positively related to all three measures of early adult political participation. The relationship was stronger for discussion of issues and campaign participation than for voting. Participation in expressive activities had a much smaller effect on political activity.

Hanks' (1981) results supported Spady's (1970, 1971), Otto's (1975), and Hanks and Eckland's (1976) findings that service-leadership activities had more long-range effects on participants than did athletic participation. Additional research is needed on the causal relationships between adolescent activity participation and early adult political participation to rule out unidentified factors that may be determining both types of involvement.

Social Participation

As part of a study of school effects on students, Lindsay (1984) compared high school extracurricular participation with young adult social participation. The data were from the NLS of the class of 1972 and represented seniors in public and private schools in 50 states and the District of Columbia. The respondents were surveyed by questionnaire in 1972 and again in 1979 (N = 8,952).

High school participation was measured by the mean score of answers to a question in the 1972 survey about participation in

eight types of activities: athletics, cheerleading, debating, drama, music, hobby clubs, school journalism, school subject clubs, and student government. Young adult social participation was based on the mean scores of answers to a question in the 1979 survey about voluntary participation in the following groups: youth (scouting, coaching), union or professional organizations, political organizations, church, community centers, organized volunteer work, social or hobby, sports, arts, educational (PTA), and service organizations. Sociability was determined by an item in the 1972 survey asking the importance of "being a leader in my community." Lindsay (1984) stated a more inclusive, behavioral definition of sociability would have been preferred, but was not available. Control variables included: SES, academic ability, gender, sociability, curriculum track, rank in class, educational attainment, and size of community.

Regression coefficients indicated that participation in high school activities had the greatest relationship to voluntary young adult social participation (.225). The second factor in importance was educational attainment (.172), followed by sociability (.092). Being female and class rank had small negative direct effects on young adult participation (-.042 and -.062, respectively).

Lindsay (1984) demonstrated an important effect of the high

school extracurricular program. Future studies should be conducted to determine the effects that participation in specific high school activities have on young adult social participation.

Long-Range Effects of Participation: Conclusions

A consistent finding in these studies was the relationship of social participation (especially in service-leadership activities) to increased educational aspirations, and educational attainment. High school participants in social activities were also found to be more involved, as young adults, in the political and social activities of their communities. No long-range detrimental effects from activity participation were evident in the research reviewed. Students in the no-activity groups had the lowest rates of educational goal fulfillment in all studies reviewed.

The process involved in the relationship between activity participation and increased educational goal fulfillment was hypothesized by the researchers to be the development of success orientations (aspiration hypothesis), the development of leadership skills (interpersonal skills hypothesis), or the development of both aspirations and skills. While participation may have these effects, it is also plausible that individuals who chose to participate were more likely to be success and leadership oriented than nonparticipants. Thus, the long-term

effects may have been due as much to individual selection factors as to activity participation.

The studies reviewed in the "Long-Range Effects of Participation in Extracurricular Activities" section are summarized in Table 2.

Insert Table 2 about here

High School Size and Activity Participation

An inverse relationship between school size and participation in extracurricular activities has been demonstrated in numerous investigations. Researchers have consistently found that students in small high schools participated in a greater number and variety of activities than students in larger high schools. The research reviewed in this section was divided on the basis of the variable studied into the following areas: school size, marginal students, personnel needs, self-concept, and community size.

School Size

Barker and Gump (1964) conducted extensive studies in Kansas high schools to study the relationship between school size and the number of "behavioral settings" (facilities and activities in which students participate) available to students.

The data for the preliminary studies were collected at 13 eastern Kansas high schools ranging in size from 35 to 2,287 students. Behavioral setting surveys were prepared for each school which listed all possible activities and classes occurring. Students were asked to circle "yes" or "no" in accordance with their participation in each behavioral setting and to add further performance information if appropriate. The largest school had 65 times as many students as the smallest schools, while having only 2.3 times as many academic activities and 4 times as many athletic settings. As schools increased in size they also increased in differentiation of academic and activity settings, but at a much slower rate.

As part of Barker and Gump's study, Barker and Hall (1964) used data compiled by the Kansas State High School Activities Association to compare the number of students from different size high schools who participated in interschool drama, music, journalism, and student government competition. There were 218 schools ranging in enrollment from 18 to 2,287 students. The number of participants per 1,000 students was smallest in the largest high schools. Schools with a mean size between 61 and 150 students had the greatest percentage of participation in interschool events. As a group, larger schools entered these events more than smaller schools (67% to 40%, respectively), indicating the lower percentage of participation in larger

schools was not due to devaluation of competition by teachers, administrators, or students.

Data from yearbooks were used by Barker and Hall (1964) to compare school size to the extent and depth of activity participation by seniors in 36 Kansas high schools. The results are presented in Table 3. When compared with larger high schools, the average number of activities and the kinds of activities that students participated in while in high school were more than twice as great in the smaller schools.

Insert Table 3 about here

Gump and Friesen (1964) investigated activities offered in large and small high schools and compared the satisfactions derived from activity participation among juniors in one large and four small Kansas high schools. Small-school students participated in a greater variety of activities and held positions of responsibility more often than large-school students. Girls participated more than boys and students with high IQs were more active than lower-IQ students.

Satisfactions gained from activity participation were compared between 88 selected juniors from the large high school and 88 juniors in the smaller high schools who were matched on the variables of sex, IQ, and race. Each student was asked to indicate which activities were especially satisfying, and why

the activities selected produced satisfaction or enjoyment.

Small-school juniors reported a satisfaction pattern quite different from large-school juniors. Students from the smaller schools stated that they gained satisfactions from developing competence, being challenged, engaging in important group action, and from acquiring moral and cultural values. Large-school students reported more satisfactions from vicarious enjoyment, being part of a large crowd, learning about their school, and gaining "points" by participation. Students in all size schools agreed that activities were satisfying due to social interaction, learning, and the novelty of new experiences. Gump and Friesen (1964) hypothesized that the differences may have resulted from juniors in smaller schools holding more positions of importance, since most of the differences were eliminated when students' positions of importance in the activities were held constant.

Barker and Gump (1964) concluded from this series of research studies that as schools get larger, fewer students are needed for direct involvement in activities, and students become superfluous in relation to activity participation. They theorized that a school should be small enough so that all students are needed to carry on its activities and make contributions to the school environment, thus facilitating the development of leadership skills and feelings of responsibility

among students. A majority of Barker and Gump's research was based on only five high schools in a restricted geographic area, thus limiting generalization of results to other areas. Subsequent studies have been based on data from larger and more diverse samples of students.

A random sample of students taking the American College Testing Program (ACT) (N = 27,371) in 1965 and 1966 was studied by Baird (1969) to verify Barker and Gump's (1964) greater activity involvement in smaller schools' hypotheses on a larger, national sample of students. The ACT assessment included a self-reported checklist of high school extracurricular accomplishments divided into the following six areas: leadership, music, drama and speech, art, writing, and science. Athletics were not listed as an area of participation. Students also indicated whether they planned to participate in college extracurricular activities. Student responses were grouped according to the size of their graduating class. The data were also grouped into four community settings: farm, small town, suburban, and central city. A two-way analysis of variance was performed to estimate the influence of high school size and community type on extracurricular participation.

The results supported Barker and Gump's (1964) hypothesis that the extent and level of participation were higher in small high schools. Small-school students had significantly higher

rates of participation in four of the six areas and in the total number of nonacademic achievements. Students from small schools had the same level of participation in the remaining two areas: science and art. Students from small, rural communities had significantly higher rates of participation in writing, music, and drama. There were, however, no significant differences in plans to participate in college activities between the various school sizes and community settings.

Baird (1969) used a second sample of college students to determine if the higher rate of activity participation among students from small high schools carried over to their college years. Little difference was found in the participation rates of college students from large and small high schools. College participation was related to college size, with students in smaller colleges being involved in a greater number of activities. This finding suggested that the immediate situation was important in the relationship between school size and activity participation. Larger institutions, whether high school or college, tended to involve a smaller proportion of students in extracurricular activities.

Downey (1978) used data from the ACT profiles of a random sample of entering freshman students at Kansas State University (N = 1,932) to study differences in students from varying high schools. Chi-square analyses indicated that students from

smaller schools participated in a significantly greater number of activities, especially in the areas of leadership, music and speech. No differences in academic potential were found in students from various size high schools.

The effects of school size on student participation were studied by Kleinert (1969) in a randomly selected sample of 63 southern Michigan high schools with enrollments in the upper three grades from 87 to 3,063 students. There was an equal representation of number of schools classified as small (0-599 students), medium (600-1,499 students), and large (1,500 students or more).

In the larger schools studied, an average of 32 students per hundred participated in one or more activity, compared with 49 per hundred in medium-sized schools and 76 per hundred in small schools. Clubs and athletics yielded the highest negative relationship between extent of participation and high school size, and the proportionate number of student leaders decreased as schools grew larger. School size had little influence on students' participation in service committees and student government.

Kleinert (1969) stated that educators should be concerned with the increasing number of high schools with enrollments over 1,500 students. He proposed that large schools be divided into several sub-schools called "schools-within a school." The

theory is that students benefit more from their high school education when they are in contact with a smaller group of teachers and students. According to Kleinert, the sub-school plan would increase participation in student activities, provided the activity program was also divided into smaller units.

Marginal Students

Working with Barker and Gump, Williems (1964, 1967) studied the social forces that led to participation by regular and marginal students. The subjects in the 1964 study were 40 junior students selected from four small and one large Kansas high school. Marginal students were defined as those most likely to drop out of school: (a) low IQ, (b) low grades, (c) father in nonprofessional occupation, and (d) parents who did not finish high school. Ten subjects were placed in each of four categories: (a) small school, regular students, (b) small school, marginal students, (c) large school, regular students, and (d) large school, marginal students. In standardized, individual interviews, the subjects were asked to think about a specific activity and to answer the following question: "What, if any, were for you real reasons for or pulls toward attending this activity?" (1964, p. 119). Answers were coded to yield scores for each student on attractions for participation (own forces), pressures (foreign forces) and responsibilities or

sense of obligation.

Small-school students reported more attractions ($p < .05$), pressures ($p < .001$), and felt more responsibilities to participate ($p < .001$) than large-school students. There was little difference between regular and marginal students in the small high schools, while marginal students in the large school felt few attractions, pressures, or responsibilities to participate. Marginal students in small schools were four times more active than their large school counterparts. These results suggested that academically marginal students had very different experiences and feelings toward participation in large and small high schools.

Willems (1967) replicated his earlier study with 80 high school juniors, this time focusing on the sense of obligation to activity participation as related to school size and marginality of student. The results were in agreement with the 1964 study: Marginal students in the small schools reported as much sense of obligation as regular students, while marginal students in the large school reported a significantly lower ($p < .001$) sense of obligation. Willems concluded that, "The principal impact of school size appears to be upon marginal students," (1967, p. 1256), and that "It would appear that the small school marginal students were not experientially and behaviorally marginal, while their large school counterparts were a group of relative

outsiders" (1967, pp. 1257, 1258).

Personnel Needs

Wicker (1968) hypothesized that the differences in participation rates between large and small high schools were due to the relationship between the personnel required for each activity and the total number of potential participants for that specific activity. Data were obtained from 107 juniors in four small high schools and from 84 juniors in one large high school in northeast Kansas. Subjects were asked to name an activity they had attended and to describe what they had done there. Student behaviors at activities were categorized as performers (on a team) or nonperformers (watching a game). Students' experiences at the settings they attended were measured by semantic differential scales. The scales consisted of adjective pairs such as interesting - boring, and pairs of phrases: I have an important job - my job was unimportant. The "index of undermanning" for each activity was the number of students who performed divided by the total number of students present.

When the ratio of number of activities to number of students was high,[1] student participation was greater than when the activity/student ratio was low. Smaller schools typically have a higher activity/student ratio than do large schools. Students held more positions of responsibility in activities with a high activity/student ratio regardless of school size.

When personnel needs were high relative to supply (high activity/student ratio), participants experienced being needed, feeling challenged, having an important job, and developing self-confidence. These effects were more likely in small schools because of the higher overall activity/student ratio in such schools. However, even in large schools, student experiences were similar to those of students in small schools when high activity/student ratio activities were considered. These findings suggested that student experiences from extracurricular participation were different within the same school depending upon the personnel needs in a specific activity.

Self-Concept and Alienation

Grabe (1976, 1981) measured self-concept and alienation as a function of activity participation in 15 small (less than 580 students) and 5 large Iowa high schools. The subjects were 803 males and 759 females who were grouped for analysis as upperclassmen (grades 11 and 12) and underclassmen (grades 9 and 10). Self-concept was measured by the following subscales from the Piers-Harris Children's Self-Concept Scale (1964): intellectual and school status, physical appearance and attributes, and popularity. The alienation scale was based on a scale constructed by Kunkel, Thompson, and McElhinney (1973). An activity checklist completed by each subject measured

frequency and extent of participation in five areas: athletics, academics, fine arts, clubs, and social life.

Small-school students had a greater frequency and diversity of participation. An exception was underclass males for whom there was little difference in participation frequency between large and small schools. Underclassmen in all sized schools reported a higher rate of athletic participation than upperclassmen ($p < .001$), while upperclassmen were more active than underclassmen in academic, social, and club activities. Students in large schools were more likely to specialize in a single activity area in order to attain the necessary level of competence for participation.

Small-school students had the greatest variability in self-concept scores, with the highest scores among successful small-school participants and the lowest scores among unsuccessful small-school male students. Grabe (1981) theorized that feelings of self-concept and personal worth were related to the pressures of the high school environment. Students in smaller schools perceived a greater pressure to participate and to achieve success in activities. Similarly, when they were unsuccessful in activities, small-school students reported a higher level of alienation then unsuccessful students in large schools. As a group, small-school students had significantly higher alienation scores ($p < .01$) and male students were

significantly ($p < .001$) more alienated than female students.

Grabe's (1976, 1981) research supported earlier research by Barker and Gump (1964), but indicated that the relationship between school size and activity participation may be complicated by intervening variables such as self-concept and alienation. Finding higher alienation scores in smaller schools was in conflict with previous research (Palmer, 1978; Schoenholtz, 1972) indicating a need for further clarification of the relationship between school size and student alienation.

Community Size

The large high school in Barker and Gump's (1964) studies was in an urban area, while the four small schools were located in rural towns. The possibility that urban-rural differences, rather than school size, were responsible for the results in the Kansas study was investigated by Campbell (1964). High schools in small rural towns, but differing in the number of students were selected. There were two small, local high schools (student population of 53 each), and a consolidated larger school (370 students). Students completed questionnaires about the forces or "pulls" toward participation in activities, and the extent and level of their participation. The small, rural school students felt more responsibility toward participation, had higher participation rates, and were involved more at the performance rather than the spectator level than students at the

larger school, even though all of the schools were in rural settings.

Lindsay (1982) replicated and extended Barker and Gump's (1964) work by using data from the National Longitudinal Study of the class of 1972 (N = 14,668) to compare the effect of school size on activity participation, satisfaction with school, and attendance. The data were controlled for community size, family SES, and academic ability. High schools were classified into three categories on the basis of enrollment in the senior class: small (100 or fewer students), medium (101-400), and large (more than 400). Rural communities were defined as nonsuburban towns having populations of 50,000 or less; larger cities and their suburbs were classified as urban. Activity participation was divided into four categories: (a) athletics, (b) drama, music, and debate, (c) journalism, and (d) student government and political clubs. Lindsay's measure of satisfaction dealt more with feeling a part of the school than with self-concept.

Students in small high schools had higher levels of extracurricular activity participation, satisfaction, and attendance than medium or large-school students. Students in the medium size schools had intermediate levels, and large-school students had the lowest rates on all three variables. The largest differences in activity participation rates were

twice as high in small schools as in large schools (the female percentage was almost three times as high). School size made more of a difference in female than male participation in all categories except student government. Students with higher SES scores participated more in each category. However, in all categories except government, rates for low-SES students at small schools were higher than for high-SES students at large schools.

A new finding in this study was that the effects of school size were independent of urban or rural location. A small high school in a large urban area resembled a small high school in a rural area. The effects of school size on rates of participation remained the same whether the schools were located in rural or urban areas. Lindsay (1982) suggested that it would be possible to organize larger schools into smaller units to provide more opportunities for participation.

The community-size research in this study would have been strengthened by dividing the rural category into two groups. A community with a population of 49,000 may not exhibit rural characteristics. Further studies should examine also large high schools that have been divided into smaller units to determine if this action does produce similar participation rates to smaller schools.

High School Size and Participation: Conclusions

A clear relationship was shown to exist between school size and activity participation. Several generalizations can be made on the basis of the research reviewed in this section:

1. Students in small schools participate in a greater number and variety of activities than students in large schools.

2. Students in small schools assume more leadership roles than students in large schools.

3. "Marginal students" in small schools feel more pressures and responsibilities to participate than their large school counterparts.

4. The differences in activity participation between large and small schools appear to be independent of the location of the high school in an urban or rural setting.

The question, "How large should a school be?" cannot be answered on the basis of activity involvement alone. Other variables such as academic learning, costs, and facilities available must be considered in order to make decisions on optimal school size. If we can assume that activity participation is related to development of skills and socialization in adolescents, then the small high school has an advantage for students due to its high degree of student participation in extracurricular activities.

The studies reviewed in the "High School Size and Activity Participation" section are summarized in Table 4.

Insert Table 4 about here

Athletics

Interscholastic sports have long been justified as an integral part of the American educational system because of their presumed benefits for adolescent development. Positive socialization effects attributed to athletic involvement include: persistence, cooperation, competition, sportsmanship, "character building" and moral development. A considerable amount of research since 1960 has focused on the role of sports in the establishment of these values among athletes.

The typical methodology in this research was to compare groups of students who were assumed similar except for sports participation. Research reviewed in this section was organized by the following dependent measures: educational expectations and achievement, delinquency, psychological effects, student development, and adolescent status systems.

Educational Expectations and Achievement

The role of athletics in the educational process has been a topic of interest since Coleman's (1961) study on education in the United States. Although Coleman argued that athletic values conflicted with academic values, a positive association between academic performance and athletic participation has generally

been reported (Eldsmore, 1964; Rehberg & Shafer, 1968; Schafer & Armer, 1968; Spreitzer & Pugh, 1973).

Eldsmore (1964) studied participants and nonparticipants in varsity football in 24 Iowa high school teams. The overall grade-point average (GPA) of the 592 male participants was 2.523 on a 4-point scale, whereas the GPA of their nonparticipating classmates was 2.085. Eldsmore's results were not controlled for relevant intervening variables.

Schafer and Armer (1968) compared GPAs of 585 sophomore athletic and nonathletic boys from two Midwestern high schools. The initial difference in GPA was .52 points: athletes (2.35) and nonathletes (1.83). When the two groups were matched on four relevant variables (father's occupation, IQ, curriculum, and previous GPA), the difference was reduced to .11 points: athletes (2.35) and nonathletes (2.24). While controlling for intervening variables clearly decreased the effects that could be attributed to athletic participation, a small positive relationship between academic performance and athletic participation remained. Two factors not considered by Shafer and Armer (1968) that might have affected athletes' GPA were: (a) Athletes may have received special academic assistance and encouragement from teachers, and (b) Academically ineligible athletes' GPAs were not included with athletic GPAs.

Rehberg and Schafer (1968) used data from 785 male seniors

from six urban Pennsylvania high schools to examine the relationship between post-high school educational expectations and athletic participation. The dependent variable, educational expectations, was measured with a questionnaire item which asked respondents to indicate how far they expected to go in school: 16 or more years, 14 years, or 12 or less years. Sixty-two percent of the athletes planned to enroll in a four-year college, compared with 45 percent of the nonathletes. Gamma, a measure of association, was used to analyze the data. A zero-order gamma of .28 indicated a positive relationship between college expectations and participation. Statistically controlling for three possible intervening variables (social status, academic performance, and parental educational encouragement) slightly reduced the strength of the relationship to a third-order gamma of .24.

Further examination of the data showed that boys not otherwise disposed toward college (low SES, low academic standing, low parental encouragement) had the greatest increase in educational expectations as a result of athletic participation. Rehberg and Schafer (1968) hypothesized that the positive relationship between sports participation and educational expectations might have been due to one or more of the following processes in athletic participation: (a) higher academic performances, (b) involvement in the leading crowd, (c)

emphasis in sports on hard work, achievement and competition, (d) increased self-esteem, (e) higher levels of visibility in the school and community, and (f) better career counseling and encouragement.

Spreitzer and Pugh (1973) sought to replicate and extend Rehberg and Schafer's (1968) study by introducing perceived peer status and school value climate as intervening variables between athletic involvement and educational expectations. The sample consisted of 1,780 senior students from 13 high schools in five Connecticut cities. Data were collected by means of a self-administered, 124 item questionnaire. The observed relationship between athletic participation and educational expectancies were similar in both studies. Spreitzer and Pugh (1973) reported a zero-order gamma of .26 which was reduced to .21 when controlling for parental SES, parental academic encouragement, and GPA as compared to Rehberg and Schafer's results of .28 and .24. Athletic participation and perceived peer status had a strong relationship (gamma = .53). Athletes with high perceived peer status had higher educational expectations (gamma = .28) than athletes with low peer status (gamma = .00). Spady's (1970) findings were again supported.

Spreitzer and Pugh (1973) then hypothesized that the value climate of schools would alter the relationship between participation and educational expectations. In schools where

athletes were highly regarded, the relationship between participation and expectations was strong (gamma = .47). When the "all-around boy" was rewarded, the relationship was weaker (gamma = .33) and in schools where academic excellence was the primary means of status achievement, the relationship between athletic participation and educational expectations was almost nonexistent (gamma = .02). Spreitzer and Pugh (1973) concluded that perceived peer status operated to increase athlete's educational expectations more in schools where athletic achievement was valued more highly than academic achievement.

Phillips and Schafer (1971) summarized the research evidence on differences between high school athletes and nonathletes:

1. Athletes receive better grades and have higher educational expectations than comparable nonathletes (Rehberg, R. A. & Schafer, W. E., 1968).
2. Athletes are less likely to become delinquent (Schafer, W. E., 1969).
3. Athletes are more upwardly mobile than nonathletes (Schafer, W. E. & Stehr, N., 1968).

Phillips and Schafer (1971) attributed these differences as possibly resulting from an athletic subculture in high schools. Athletes were found to interact with other athletes more than with nonathletes and to share norms that regulated their

behavior. Sports participants appeared to be under greater pressure to conform to conventional school standards of behavior. Coaches frequently were role models for student athletes and acted to transmit school norms and values to their players.

The nature of the coach-player relationship, based on the degree of team involvement, was the subject of a study by Snyder (1975). The sample of subjects consisted of basketball players randomly selected from 270 Ohio high school boys' varsity team rosters. In addition, 98 star players who had received all-city, all-league, or all-state team honors were included. Data were collected by a questionnaire mailed to subjects. Responses were received from 300 players.

The independent variable, intensity of team involvement, was operationalized by classifying players into substitute, starter, and star categories. Three dependent variables and the questions used to measure each were: (a) Educational plans: "Have you decided whether or not to go to college?" (b) Coach gave advice about college: "Does your basketball coach ever give suggestions or advice about whether or not you should go to college?" Responses: "Often," "Seldom," and "Never," and (c) Player's perception of his coach's influence: "Has your basketball coach been an influence to you?" Responses: "Great deal," "Some," "Little," and "No influence." Only responses

from seniors were used in data analyses.

Team involvement (starter vs. substitute) and star status were positively related to all three dependent variables. Stars were more likely to attend college (95%) than starters (91%) or substitutes (80%). Coaches gave advice about attending college more often to stars (75%) than to starters (48%) or substitutes (26%). Stars perceived their coaches to be a "great" influence on them (79%) considerably more than either starters (51%) or substitutes (31%).

The results of Snyder's (1975) study suggested that the coach-player relationship was a vital factor in the socialization effects of athletic participation. Further research should be directed at athletes in sports other than basketball (such as football, soccer, golf, track), which have different player-coach ratios.

When Spady (1970) attributed the college dropout rate of former high school athletes to lack of academic skills (see "Long-Range Effects"), he assumed that other variables (such as failure to make the collegiate team, financial problems, emotional instability) were not operating in the dropout process. Landers, Feltz, Obermeier, and Brouse (1978) tested Spady's contention that high school athletes were deficient in academic skills by comparing Scholastic Aptitude Test (SAT) scores of athlete-only and athlete-service groups of students.

A 1975 Maryland sample from one high school (N = 239) and a 1977 Pennsylvania sample from two high schools (N = 403) of male and female students were placed in the two experimental groups. Type of extracurricular involvement was determined by consulting yearbooks for the previous two years. Athletes-only was defined as students who had participated one or more seasons on a varsity sport team; athlete-service was defined as athlete status plus participation in a service-leadership activity such as social service groups and school or class government. The SAT scores of the athlete-only group were compared with the athlete-service group for both samples (Maryland and Pennsylvania) and each group's scores were then compared with the national average for males and females. The total SAT scores and the verbal scores were analyzed separately by independent t-tests.

Both samples (Maryland and Pennsylvania) of athlete-service males had significantly higher ($p < .01$) total and verbal SAT scores than the athlete-only groups. Athlete-only male total SAT scores were significantly lower ($p < .01$) than the 1975 and 1977 male national averages. The 1975 Maryland sample of athlete-only males also had significantly lower verbal SAT scores than the male national average. The Maryland male athlete-service group had significantly higher scores than the national average for both total and verbal SAT scores.

Results for both the Maryland and Pennsylvania female samples were nonsignificant for both total SAT and verbal scores when comparing athlete-only to athlete-service groups. The Maryland female athlete-service group had significantly higher verbal scores than the female national average. All other female comparisons were nonsignificant.

Landers' et al. (1978) data lend support to Spady's contention that the athlete-only male high school participant may lack academic skills necessary for completing college. However, the two groups may have started high school with different academic abilities, and while the higher ability athletes elected to also take part in service activities, the lower ability athletes limited their extracurricular participation to sports. Academic aptitude testing of subjects prior to high school entrance could serve as a possible control for reducing this possibility.

Female athletic participation. Increased sports participation by girls has created a need to assess the effects of athletic involvement on female participants. Generally, research results for female athletes have been inconclusive (Landers et al., 1978; Hanks & Eckland, 1976). Snyder and Spreitzer (1977) compared female athletic participation in different types of sports with music involvement as mediators of educational expectations. Two questionnaires were mailed to

randomly selected Ohio high school girls who had participated in interscholastic gymnastics, basketball, or track. Each athlete was to complete one set of questions, and have a girl friend who did not participate in athletics complete and return the second questionnaire (Total N = 1,042). Music involvement was measured by the following item: "During the present school year, have you been a member of either the school band or orchestra (yes, no)?"

Gymnasts had the highest educational expectations and grade averages of the athletic groups. Girls who participated in both sports and music had a statistically significant ($p < .05$) higher level of expectations than nonparticipants. When participants in sports alone were compared with girls in music only and with nonathletes there were no significant differences.

Snyder and Spreitzer (1977) concluded that neither sports nor music were strong predictors of educational expectations among high school girls. This interpretation is limited because peer relations are confounded with sports participation. Selection of the control group (nonathletes) by the experimental group may have influenced the results of this study. Otto and Alwin (1977) demonstrated a significant relationship between "best friend's educational plans" and educational aspirations. Thus, it is possible that peer influence overrode the effect of activity participation in Snyder and Spreitzer's study. Similar

SES of friends could also account for the lack of significant differences in educational expectations.

Feltz and Weiss (1964) assessed the influence of athletics and other extracurricular activities on the academic orientation of 485 senior girls from four Michigan high schools. Activity participation was categorized into four groups: athlete-only, service-only, athlete-service, and neither. Athlete-only was defined as participating in one or more varsity sports during the junior and/or senior year. Service-only students participated in one or more service or leadership activities. Athlete-service participants were in one or more varsity sports plus one or more service/leadership activities. Yearbooks were used to determine the type and extent of participation for each girl. The dependent variables were composite and English scores of the American College Test (ACT). School counselors provided ACT scores and information about parental occupations and educational levels.

The athlete-only participants had the lowest composite and English ACT scores; however, all of the differences by participation category were nonsignificant. Socioeconomic status and extent of activity involvement were both significant factors ($p < .001$) in predicting ACT scores. Regardless of participation category, high SES levels were associated with high ACT scores. Girls involved in five or more activities over

a 2-year period obtained significantly higher ACT scores than girls who participated in four or less activities. This finding was of interest because it was counter to Coleman's (1961) theory that energy expended on activities detracted from academic performance.

A new dimension, extent of participation, was added to the study of the relationship between athletic participation and educational orientation by Feltz and Weiss (1984). Further research using total activity involvement as a variable with both male and female subjects would seem merited.

Delinquency and Athletic Participation

Schafer (1969) compared rates of delinquency among athletes and nonathletes and found athletes to be less delinquent. This difference was statistically significant only between groups of boys that were low academic achievers and from blue-collar families. This finding suggests that for boys at higher risk of involvement in delinquent acts, athletic participation may serve to moderate negative influences on development. However, self-selection may also account for the observed differences.

Landers and Landers (1978) extended Schafer's (1969) study by investigating the association between specific types of extracurricular participation and delinquent acts. Male students (N = 521) in one Northeastern high school were categorized into four types of participation: (a) athlete-only,

(b) athlete-service, (c) service-only, and (d) neither. Court records were used as the measurement of delinquency and yearbooks were consulted to determine activity participation. There were no significant differences between participation categories. When participants in all types of activities were compared with nonparticipants, a significant ($p < .001$) difference indicated a relationship between participation in extracurricular activities and lower incidence of delinquency. Athletics did not reduce delinquent acts any more than participation in other school activities.

Self-selection of more conforming boys into activities could serve as a source of this difference. However, it is also a plausible hypothesis that involvement in a school culture through participation in activities may serve to direct adolescent energies toward prosocial activities. Landers and Landers (1978) suggest that future research should focus on why some students get involved in the extracurricular program and others do not. We concur in this view and further suggest that more analytic studies designed to separate the effects of external variables such as SES and ability, from the effects of participation are required.

Psychological Effects

Numerous studies have compared the personality characteristics of athletes and nonathletes. Previously

published reviews of research on personality and sports participation have reported divergent results (Andrews, 1971; Cooper, 1969; Stevenson, 1975). Personality factors which have yielded conflicting results include such factors as cooperation, leadership, extroversion, emotional stability, self-confidence, self-discipline, and aggression. One consistent finding was that athlete samples were significantly ($p < .01$) higher on a "dominance" factor (Booth, 1961; Hunt, 1969; Schendel, 1965). Two frequently cited studies with psychological variables were selected for review: One measured self-concept of athletes (an often neglected concept) and the second investigated psychological characteristics of athletes at various educational levels.

Self-concept. The subjects of Dowell, Badgett, and Hunkler's (1972) study were 475 male freshmen who attended a summer orientation program at Texas A&M University. Each boy completed an extracurricular information form and the "Self-Rating Scale" (Hope, 1960), a self-reporting scale consisting of 43 adjectives that described favorable personal characteristics. Five dimensions of self-concept were measured: intellectual, emotional, physical, social, and motivational. An athletic achievement index was calculated for each subject based on the number of years of participation in sports, number of different sports, honors earned, and team captain status. Correlation

coefficients were computed to measure the relationship between athletic achievement and the self-concept dimensions. There were significant positive correlations between athletic achievement and the physical ($p < .01$) and the motivational ($p < .05$) dimensions of self-concept. There was a significant negative correlation ($p < .01$) between athletic achievement and intellectual self-concept. The results of this study would indicated that these athletes perceived of themselves as more physical and motivated individuals rather than as intellectuals.

Psychological characteristics. Schendel (1965, 1968) used both a cross-sectional (1965) and a longitudinal (1968) research design to study psychological characteristics of athletes. The California Psychological Inventory (CPI) (Gough, 1960) was administered to 120 9th-grade, 109 12th-grade, and 105 college male athletes and nonparticipants. The subjects were randomly selected from nine junior high schools and four senior high schools in Eugene and Springfield, Oregon and from members of the junior and senior classes at the University of Oregon. The CPI was designed to measure personal-social characteristics in normal subjects and to provide scores on 4 broad categories that are further divided into 18 separate scales.

There were statistically significant ($p < .05$) differences between athlete and nonparticipant groups at each educational level. Ninth grade athletes possessed higher scores than

nonathletes in all instances where there was a significant difference, including qualities of leadership and social initiative, sociability, sense of personal worth, social maturity, and being more socially conventional and intellectual. There were fewer significant differences in desirable personal-social characteristics for twelfth grade athletes than for 9th-grade athletes. College student nonparticipants scored higher than college athletes on every scale except communality.

Few significant differences in personal-social characteristics existed between athletes rated as substitutes, regular players, or outstanding athletes. The differences which did exist indicated that the lower ability athletes at the 12th-grade and college levels generally possessed desirable traits to a greater extent than did the athletes of greater ability.

The groups of subjects in Schendel's (1965) study were defined differently at each educational level, confounding comparisons between age levels. Schendel (1968) followed-up this study with a longitudinal investigation in which 91 of the original 9th-grade subjects were administered the CPI again as 12th-graders. The differences between athletes and nonparticipants decreased in intensity and number between ninth and twelfth grade. Nonparticipants showed greater change than the athletes, especially on measures of poise, ascendency, self-assurance, and sense of personal worth. Schendel (1968)

suggested that the nonparticipant group narrowed the gap during the senior high school years.

Athletes of different ability levels showed differing personal-social changes. Substitutes had virtually no change on the self-acceptance and dominance scales, while the outstanding athlete, regular player, and nonparticipant groups all demonstrated substantial increases in mean performances on these scales. Schendel (1968) suggested this lack of personal-social development may have been due to the substitutes' lack of achievement and general feeling of frustration from their athletic experiences. Athletes of different ability levels appeared to have differing experiences and effects from sports participation. There is a need for further research to provide insight into the processes involved in the personality development of high school athletes. In addition, students who were athletes in ninth grade were more likely to be early maturers or reach pubescence earlier than students who were not involved in athletics. Thus, observed differences may have been due to the turning of pubescence. Similarly, the apparent greater gains from 9th-12th grade of the nonathletes may have been due to the achievement of pubescence over this interval.

Student Development

The relationship between participation in varsity athletics at the collegiate level and the achievement of certain

developmental tasks was the subject of an investigation by Sowa and Gressard (1983). The sample consisted of 48 athletes and 48 nonathletes randomly selected from varsity athletes and the student population of a Southern university. The dependent measure was the Student Developmental Task Inventory (SDTI) (Winston, Miller & Prince, 1979) which was designed to measure progress toward achievement of the developmental tasks defined by Chickering (1969). It provides scores on nine subscales: emotional autonomy, instrumental autonomy, interdependence, educational plans, career plans, lifestyle plans, mature relationships with opposite sex, mature relationships with peers, and tolerance.

Athletes had significantly lower scores than nonathletes on three subscales: educational plans, career plans, and mature relationships with peers. The authors suggested that the "coachability of a player" that aids an athlete in sports participation may hinder the individual in developing career and educational planning skills. Lack of purpose beyond sports makes the transition from athlete to nonathlete difficult. Sowa and Gressard (1983) argued that focusing on sports-related activities in high school and college might inhibit the development of career and educational planning skills by reducing the emphasis placed on educational goals by athletes. The results of this research indicated that athletes may have

special concerns which should be met with counseling and special programs, beginning in high school.

Adolescent Status System

Coleman's original research was replicated and extended 16 years later by Eitzen (1975). Randomly selected students from six Kansas, one Illinois, and two Indiana high schools were asked four items from Coleman's study, including: "If you could be remembered here at school for one of the three things below, which would you want it to be?" (p. 268). Comparisons between Coleman's and Eitzen's findings were: "athletic star," Coleman (44 percent), Eitzen (47 percent); "brilliant student," Coleman (31 percent), Eitzen (23 percent); and "most popular" Coleman (25 percent) and Eitzen (30 percent). The data from the schools studied by Eitzen indicated that the dominant criterion of status among male high school students was still athletic ability.

Individual, school, and community characteristics were studied to determine their effects on sports participation as a criterion of status. The relationship between year in school and "how one wishes to be remembered" are presented in Table 5. An interesting change occurred between the sophomore and senior years: Athletic star decreased 19 percent while most popular increased 15 percent and brilliant student increased 4 percent.

Insert Table 5 about here

Table 6 shows the relationship between school size and the dependent measure. The greatest enthusiasm for sports was in the smaller schools. Table 6 clearly indicates the variation in results that could result if schools of only one size had been selected.

Insert Table 6 about here

Small rural communities were found to be most enthusiastic of their high school teams. Communities with a lower percentage of professional persons and with a higher percentage of family incomes less than $3,000 had higher percentages of males who wanted to be remembered as an athletic star. Athletic prestige was particularly characteristic of nonwhite sons of undereducated fathers and in small schools with a strict authority structure.

Effects of Athletic Participation: Conclusions

The research results of the overall socialization effects of athletic participation are still inconclusive. Positive relationships have been demonstrated between certain variables and participation. Educational aspirations were consistently

higher in athletes, especially among lower SES and lower ability males. Spady's (1970) hypothesis that male athletes have higher educational goals than nonathletes in relation to their academic skills has been supported. A conflict arises between studies reporting higher academic achievement (as measured by GPA) and those reporting lower academic aptitude (SAT scores) among male athlete-only participants. Future experimental research should focus on the possibility that intervening variables such as curriculum and course selections, extra-scholastic assistance, high achievement orientation, or preferential grading might be operating to increase grade point averages of athletes. Schafer and Armer (1968) concluded that even when athletes remained in school only for sports participation their chances of acquiring useful skills and knowledge were increased.

Participation in nonsport activities by athletes appeared to be related to beneficial outcomes for both male and female varsity athletes. Thus, encouraging athletes to specialize in a sport in high school may promote short-range athletic goals, but be detrimental to long-range educational goals.

Sports participation may produce different socialization effects on members of the same athletic team depending on the ability level of the individual. Being a star athlete was correlated with more positive effects than being an average player or substitute. The amount of peer prestige from athletic

participation has been shown to vary according to the value climate of high schools, suggesting that athletic participation in different high schools might produce differing effects on those involved.

Research studies on female athletic involvement have produced few significant results. Landers et al. (1978) suggested that coaches may not emphasize continuous involvement in sports as much for female athletes, thus reducing the overall effects of participation. Additional research, especially of a longitudinal design, is needed to assess both the short and long-range impact of female athletic participation.

Whether athletic participation contributes to the development of values such as competition, cooperation, sportsmanship, persistence, and courage is still a subject of debate. Regardless of the overall effects of sports involvement, athletics still remain important in the status system of adolescent males.

The studies reviewed in the "Athletics" section are summarized in Table 7.

Interpretations, Limitations, and Future Research Directions

Interpretation of Studies

The research reviewed is consistent with the view that participation in extracurricular activities in high school

enhances the overall educational experiences of students by providing opportunities to work cooperatively and informally in student groups within the school setting. In general, a positive relationship was shown between participation in activities and academic achievement, socialization of attitudes and skills, improved race relations, and attainment of goals. There was no evidence that activity programs in high schools diverted students from academic pursuits. However, the research designs employed in these studies were typically weak and causal relationship between activity participation and enhanced development were not established.

Activity and academic programs that are mutually supportive enable students to have meaningful learning experiences both in the classroom and in the extracurriculum. Students are more likely to experience a passive role in the academic setting, whereas in extracurricular activities students are more actively involved. Classroom activities often create competition between students for a limited number of academic rewards. An activity which brings together students with similar interests who are working toward a common goal can be the basis for close friendships. Participation also provides opportunities for the individual student to identify with a social group in a more mature and independent way than classroom experiences allow.

Extracurricular activities serve as a means of releasing

tension, especially for students of lower academic ability who have few successful endeavors in the school's academic program. Interpersonal skills acquired by working with peers have long-range benefits both socially and occupationally. If it can be assumed that talent will not be developed unless it is used, the extracurricular program is important in providing students a means to pursue their various talents.

Lindsay (1984) and Hanks (1981) demonstrated that participation in school social activities was associated with higher participation in young adult voluntary social activities. Adolescents of today will have more leisure time as adults due to a shortened work week, and thus the interests and skills developed in school activities will be important resources for adult social participation.

The relationship between school size and activity participation is well documented. Students in smaller high schools participate in a greater number and variety of activities per student, and have more opportunities for leadership positions than students in larger high schools. Research has shown that nonparticipating students feel less satisfied with high school, have more absenteeism, and are more alienated from school than activity participants. Recent school reorganizations have moved 9th-grade to the senior high school. Ricchiardi (1986) reported that the 9th-grade dropout rate has

more than doubled in three Iowa high schools that have so reorganized. Administrators stated that 9th-graders feel powerless and have absolutely no confidence in their abilities. Some students have as many as 50 absences per year. The larger high school with its more institutional character and impersonal atmosphere is less likely to create an atmosphere where students feel they are a necessary part of the school's extracurricular program.

General Research Limitation

While the research reviewed in this paper has employed a wide variety of specific methodology and measuring instruments, the fundamental design underlying the majority of studies has been to compare participants in high school activities with non-participants on some set of ability, social, or personality characteristics. As noted above, participation in activities has been generally associated with more socially desirable levels on the measured charateristics. Some researchers have been tempted to conclude that a casual relationship exists between participation and beneficial development. While the available data are not inconsistent with such an interpretation, they also fail to provide conclusive evidence of such a relationship, primarily because of a number of conceptual and methodological limitations that exist in the data.

The primary conceptual limitation in the research has been

the failure of researchers to adequately ground their studies in the social context of the communities studied. Adolescents attending high school are participants in a social system that extends beyond the physical context of the school building and the temporal context of the hours spend there. The social system of a particular community--the activities it values, the role high school activities play in the community, the values parents communicate to children, the community support provided for high school, the range of opportunities provided for adolescents in the community--serves to define the roles, functions, and values, and rewards provided for participation. Thus, high schools and the opportunities they provide for adolescents have meanings only as defined both by the social characteristics of communities in which they exist and by the specific characteristics of the high school themselves. For example, participation in a sports activity in which a person achieves success may have a positive benefit on self-esteem and confidence in a community and family that values sports, but may have negative consequences in a community or family context that degrades sports achievement. An adequate understanding of the effects of participation in activity in a particular school can only be developed if the social context in which that activity takes place is also examined.

Almost universally the researchers reviewed in this paper

have ignored the effects of social context in examining the effects of participation. Instead, researchers have tended to adopt a simplistic view of participation. Participation has been seen as a variable which can produce effects independently of the social meanings attached to participation. Under such a view, outcome differences have been uncritically attributed to participation when it seems likely that participation serves as a variable that mediates the influence of social context on individual development.

A second related conceptual problem is the assumption of population equivalence prior to activity participation. Researchers have made little attempt to control for the effects of self-selection in the selection of samples. Such self-selection can influence the results of studies in two ways. First of all, self-selection may mean that the groups differed in the dependent characteristic prior to participation. Hence, observed outcome differences in a measured chararteristic may simply reflect preexisting population differences. A second possibility is that individuals who choose to participate in activities may differ from those who do not participate in some characteristic that influences the effects of participation of the observed outcome characteristic. This possibility incorporates a kind of trait-treatment interaction perspective. For example, assume two groups of students are equal in overall

measured popularity prior to participation in a school activity. The groups differ in social skills and in extroversion. Individuals with better social skills and higher in extroversion self select into the designated activity because they perceive they will achieve success in it. They are relatively successful and do experience an increase in popularity. Those who chose not to participate do not change in popularity, but because the participants increase, are significantly different from the participants in an outcome study. However, if the non-participant had been "forced" to participate, their lack of social skills and higher level of introversion would have led to a lack of success in the activity. Hypothetically, as a result, they would have suffered a decline in popularity from participation. A researcher who simply examined outcome differences would conclude that participation leads to (or at least is associated with) increases in popularity. Such a conclusion would be misleading.

A final conceptual problem involves the level of theoretical analysis presented in the studies. Most of the studies have not contained either a detailed theoretical rationale for the research nor a description of the theoretical processes by which participation should influence individual development. Most of the research has not been theoretically oriented. For example, to hypothesize that participation may

influence self esteem positively is not a theoretical statement. Rather a theory about self esteem and participation would describe how individuals with specified characteristics would experience particular processes occuring as a result of participation and as a result experience changes in self esteem. Thus, an adequate theoretical analysis would relate a description of individual difference characteristics and particular processes occuring in participation to outcome measures. Such a description would allow researchers to focus not only on outcome measures and molar descriptive variables, but would permit a more molecular analysis of the effects of participation. In addition, more detailed theoretical analysis used in planning research would also permit more sophisticated analytical techniques (e.g. path analysis, lisrel) to be used in research on participation. By its very nature, research on participation cannot be truly experimental. Hence causal effects will be difficult to detect. However, a research approach that is theoretically oriented would also permit researchers to identify potential confounding variables and employ research designs that permit estimation of causal effects (Cook and Campbell, 1979).

A number of additional methodological weaknesses plague research on participation. Typically, the length and intensity of activity participation have not been clearly assessed or

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Footnotes

[1]Rather than using the original term "overmanned", we have choosen to use the term activity/student ratio.

Table 1

Studies Reviewed in the "Immediate Effects of Participation in Extracurricular Activities" Section

Author	Independent Variable	Dependent Variable	Summary of Results
Burbach, H.J. (1972)	Activity participation Holding office Sex Athletic participation	Societal powerlessness High school powerlessness	Participants, office-holders, and females felt more in control and had lower powerless scores. Athletics had no effects.
Burbach, H.J. (1974)	Activity participation GPA Sex Race SES Geographic location	Committedness: Felt power Response to authority	Participation, higher grades, being female, white, higher SES, and from rural or suburban areas were related to committedness.
Phillips, R.E. (1969)	Activity participation: athletics, clubs, music, and other	Self-concept	Male participants, first-string male athletes, and music participants had the highest self-concept scores.

Table 1 cont.

Author	Independent Variable	Dependent Variable	Summary of Results
Duffy, J.P. (1982)	Service program participation	Moral development and reasoning (Defining Issues Test)	Students with service experience showed a higher rate of moral growth than a control group.
Robitaille, J.P. & O'Neal, S. (1981)	Band and/or orchestra participation	Academic achievement	Instrumental music students had a slightly greater increase in basic skill scores than nonmusicians.
Slavan, R.E. & Maddon, N.A. (1979)	Teacher workshops Multi-ethnic texts Class discussions Biracial advisory committee Working with other races Biracial sports teams	Race relations in desegregated high schools	Working with other races in class or activities showed the greatest relationship to improved race relations.

Table 1 cont.

Author	Independent Variable	Dependent Variable	Summary of Results
Crain, R.L. (1981)	School practices related to race relations including activity participation	School racial effectiveness General educational effectiveness	Higher rates of activity participation were predictive of school success.
Scott, E.S. & Domico, S.B. (1983)	Participation in different activities Cross-race participation in high school and college	Relationship between high school and college participation	College and high school cross-race participation were related.
Darden, J.T. & Jacob, S. (1981)	Rate of desegregation	Level of activity participation	Rapid desegregation led to lower rates of black and white activity participation.

Table 1 cont.

Author	Independent Variable	Dependent Variable	Summary of Results
Buckley, D. M. (1977)	Sex Academic success Grade Level SES	Participation Satisfactions, experiences, and pressures to participate	Females participated more than males Academic success and grade level interacted in predicting success Lower SES students felt more pressure to participate

Table 2

Studies Reviewed in the "Long-Range Effect of Participation in Extracurricular Activities" Section

Author	Independent Variable	Dependent Variable	Summary of Results
Spady, W.G. (1970)	Type of participation: Athletics Service	Educational goals Educational attainments Goal fulfillment	Athletes reported high educational goals but low fulfillment. Athlete-service had the highest rates on all three variables.
Spady, W.G. (1971)	Type of activity: Sports, social clubs, arts, service-leadership, no activity Peer status Academic achievement Motivation	Educational goals Goal fulfillment	Service-leadership had the highest goal fulfillment, followed by high academic achievers, sports, social and arts, and no activity.

Table 2 cont.

Author	Independent Variable	Dependent Variable	Summary of Results
Otto, L.B. (1975)	Activity participation Family SES Mental ability Academic achievement	Educational goal attainment	Extracurricular participation increased educational goal attainment 9% over other variables.
Otto, L.B. (1976)	Activity participation	Education, occupation, and income attainment	A positive relationship between participation and all three variables was demonstrated. Otto suggested interpersonal skills were acquired.
Otto, L.B. & Alwin, D.F. (1977)	Athletic participation Perceived peer status Significant-other influence	Educational and occupational aspirations, Educational and occupational attainments, Income	The effects of athletic participation on aspirations and attainment were attributed to significant-other influence rather than perceived peer status.

Table 2 cont.

Author	Independent Variable	Dependent Variable	Summary of Results
Hanks, M.P. & Eckland, B.K. (1976)	Activity participation: Social, athletic Contact with teachers College plans Grades	Educational attainment Factors leading to participation	Social participation resulted in more positive effects on educational attainment. Factors leading to participation included teacher contact, college plans and grades (social only).
Snyder, E.E. (1969)	Social participation in high school	Adolescent values Young adult values Educational and occupational attainment	Values changed from adolescense to young adulthood. Participants finished college and reported higher rates of white-collar jobs than nonparticipants.

Table 2 cont.

Author	Independent Variable	Dependent Variable	Summary of Results
Hanks, M. (1981)	Activity participation: Instrumental - clubs, government, yearbooks Expressive - sports, debate, music	Young adult political involvement	Instrumental activities increased young adult political involvement more than expressive activities.
Lindsay, P. (1984)	Activity participation Education Sociability Gender	Young adult social participation	High school activity participation demonstrated the highest relationship to young adult social participation of all independent variables.

Table 3

Mean Number of Activities per School and Percent of Seniors Reporting 5 or More Kinds of Activities for Stated Senior Class Size

Mean Size of Senior Class	Mean No. of Activities Per School for 4 Years	Percent of Seniors Reporting 5 or More Kinds of Activities
8	21.5	53
17	15.0	41
24	18.5	48
51	16.2	21
84	12.3	11
160	11.8	12
182	9.4	10
458	9.1	3
591	9.6	4

Adapted from Barker, R.G. and Gump, P.V. (1964). Big school, small school, pp. 70, 71.

Table 4

Studies Reviewed in the "High School Size and Activity Participation" Section

Author	Independent Variable	Dependent Variable	Summary of Results
Barker, R.G. & Gump, P.V. (1964)	School size: 13 schools ranging from 35 to 2,287 students.	Behavioral settings: Academic Activity	Increases in school size resulted in increased behavioral settings, but at a slower rate.
Barker, R.G. & Hall, E.R. (1964)	School size: 218 schools ranging from 18-2,287 students	Participation / 1,000 students in inter-school events. Extent and depth of activity participation	The number of participants in interschool events per 1,000 students was highest at small schools. Students at small schools participated in greater numbers and kinds of activities.

Table 4 cont.

Author	Independent Variable	Dependent Variable	Summary of Results
Gump, P.V. & Friesen, W.V. (1964)	School size: 1 large school 4 small schools	Satisfaction from activity participation	Small-school participants reported satisfactions from being challenged and character development; large-school students reported being part of a large crowd.
Baird, L.L. (1969)	Size of graduating class: < 25, 25-99, 100-399, > 400	Activity participation: leadership, music, drama, art, writing, and science College participation	Small school students had higher rates of participation in four of six areas. There were no differences in college participation.
Downey, R.G. (1978)	Size of graduating class 7 categories from < 25 to > 900	Participation in different activities	Small-school students participated more, especially in leadership, music, and speech activities.

Table 4 cont.

Author	Independent Variable	Dependent Variable	Summary of Results
Kleinert, E.J. (1969)	School size: Small: < 600 Medium: 600-1,499 Large: > 1,500	Total number and type of activity participation	School size had the greatest influence on clubs, and athletic participation; little effect on service committees and student government.
Willems, E. (1964, 1967)	Marginality of students School size	Attractions, pressures, and obligations to participate	Marginal students in small schools experienced attractions, pressures and obligations similar to regular students. Large school marginal students felt little pressure or need to participate.

Table 4 cont.

Author	Independent Variable	Dependent Variable	Summary of Results
Wicker, A. (1968)	Manpower required per activity School size	Semantic differential scales	Activities with similar activity/student ratios had similar characteristics whether in large or small schools.
Grabe, M.D. (1975)	School size Activity participation	Self-concept Alienation	Small-school students reported more variability on self-concept scales and experienced higher levels of alienation when unsuccessful in activities.

Table 5

Relationship Between Year in School and How One Wishes to be Remembered

	How Remembered					
	Brilliant Student		Athletic Star		Most Popular	
Year in school	%	N	%	N	%	N
Sophomores	21.2	(69)	55.5	(181)	23.2	(76)
Juniors	22.7	(64)	47.2	(133)	30.1	(85)
Seniors	25.4	(61)	36.3	(87)	38.3	(92)

Adapted from Eitzen, D.S. (1975). Athletics in the status system of male adolescents. Adolescence, 10, p. 272.

Table 6

School Size and How One Wishes to be Remembered

	How Remembered					
	Brilliant Student		Athletic Star		Most Popular	
School size	%	N	%	N	%	N
Large (2,160-1,365)	28.8	(78)	35.8	(97)	35.4	(96)
Medium (800-500)	22.3	(77)	49.3	(170)	28.4	(98)
Small (300)	18.3	(46)	54.8	(138)	27.0	(68)

Adapted from Eitzen, D.S. (1975). Athletics in the status system of male adolescents. Adolescence, 10, p. 273.

Table 7

Studies Reviewed in the "Athletics" Section

Author	Independent Variable	Dependent Variable	Summary of Results
Eidsmore, R.M. (1964)	Varsity football participation in 24 high schools	Grade Point Average	Football players had higher GPAs than nonparticipants.
Schafer, W.E. & Armer, M. (1968)	Athletic participation by sophomore males	Grade Point Average	Athletes had higher reported GPAs.
Rehberg, R.A. & Schafer, W.E. (1968)	Athletic participation in six Pennsylvania high schools	Educational expectations	A positive relationship between sports participation and educational expectation was revealed.
Spreitzer, E. & Pugh, M. (1973)	Athletic participation Perceived peer status School value climate	Educational expectations	High perceived peer status and an athletic value climate were positively related to educational expectations.

Table 7 cont.

Author	Independent Variable	Dependent Variable	Summary of Results
Phillips, J.C. & Schafer, W.E. (1971)	Athletic participation	Review of athletes' characteristics Athletic subculture	Research on differences between athletes and non-athletes was reviewed. An athletic subculture was hypothesized.
Snyder, E.E. (1975)	Intensity of team involvement: substitute, starter or star	Educational plans College advice from coach Player's perception of coach's confidence	Team involvement and star status were positively related to all three dependent variables.
Landers, D.M., Feitz, D.L., Obermeier, G.E. & Brouse, T.R. (1978)	Athletic-only participation Athlete-service participation	Scholastic Aptitude Test scores: Total and verbal subscore	Athlete-only males were below the male national average on total and verbal SAT scores. Athlete-service were above average.

Table 7 cont.

Author	Independent Variable	Dependent Variable	Summary of Results
Snyder, E.E. & Spreitzer, E. (1977)	Female athletic participation Female music involvement	Educational expectations	Female athlete-music participants had higher expectations than music-only, athlete-only, or nonparticipants.
Feltz, D.L. & Weiss, M.R. (1984)	Female participation: Athlete-only Service-only Athlete-service Neither SES Extent of participation	American College Test scores: Composite and English sub-score	Athlete-only had the lowest scores (not significant). High SES and participation in more than 5 activities were positively related to high ACT scores.
Schafer, W.E. (1968)	Athletic participation SES Academic achievement	Delinquent acts	Athletic participation was negatively related to delinquency among low SES and lower academic achievers.

Table 7 cont.

Author	Independent Variable	Dependent Variable	Summary of Results
Landers, D.M. & Landers, D.M. (1978)	Activity participation: (male) Athlete-only Athlete-service Service-only Neither	Delinquent acts	No significant differences between participation categories was found. Overall, participants were significantly less delinquent.
Dowell, L., Badgett, J., & Hunkler, R. (1972)	Athletic achievement: Number of years and sports, honors, captain status	Self-concept: intellectual, emotional, physical, social, and motivational	Athletic achievement correlated positively with physical and motivational self-concepts, and negatively with intellectualism.

Table 7 cont.

Author	Independent Variable	Dependent Variable	Summary of Results
Schendel, J.S. (1965)	Athletic participation: 9th-grade 12th-grade college (Cross-sectional study)	Personal-social characteristics (California Psychological Inventory)	Ninth grade athletes possessed more desirable traits than nonathletes; 12th-grade athletes had fewer high scores and college athletes only one.
Schendel, J.S. (1968)	Athletic participation: 9th-grade 12th-grade (Longitudinal study)	Personal-social characteristics (CPI)	Nonathletes showed greater gains in desirable traits than athletes.
Sowa, C.J. & Gressard, C.F. (1983)	Varsity athletic participation (college)	Student development: (Student Development Task Inventory) Autonomy, Purpose, Interpersonal relations	Athletes had lower scores than nonathletes on three scales: educational plans, lifestyle plans, and mature peer relationships.

Table 7 cont.

Author	Independent Variable	Dependent Variable	Summary of Results
Eitzen, D.S. (1975)	Athletic participation Individual factors School factors Community factors	Status system of male adolescents.	Athletic ability was the dominant criterion of male high school status. Athletic prestige was highest among sophomores with undereducated fathers in small, rural schools.